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NEWS 10	JAN 07	WPIDS, WPINDEX, and WPIX enhanced Japanese Patent Classification Data
NEWS 11	FEB 02	Simultaneous left and right truncation (SLART) added for CERAB, COMPUAB, ELCOM, and SOLIDSTATE
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NEWS 13	FEB 06	Patent sequence location (PSL) data added to USGENE
NEWS 14	FEB 10	COMPENDEX reloaded and enhanced
NEWS 15	FEB 11	WTEXTILES reloaded and enhanced
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NEWS 19	FEB 23	MEDLINE now offers more precise author group fields and 2009 MeSH terms
NEWS 20	FEB 23	TOXCENTER updates mirror those of MEDLINE - more precise author group fields and 2009 MeSH terms
NEWS 21	FEB 23	Three million new patent records blast AEROSPACE into STN patent clusters
NEWS 22	FEB 25	USGENE enhanced with patent family and legal status display data from INPADOCDB
NEWS 23	MAR 06	INPADOCDB and INPAFAMDB enhanced with new display formats
NEWS 24	MAR 11	EPFULL backfile enhanced with additional full-text applications and grants
NEWS 25	MAR 11	ESBIOBASE reloaded and enhanced
NEWS 26	MAR 20	CAS databases on STN enhanced with new super role for nanomaterial substances
NEWS 27	MAR 23	CA/CAplus enhanced with more than 250,000 patent equivalents from China

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 NEWS 28  MAR 30  IMSPATENTS reloaded and enhanced

 NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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FILE 'HOME' ENTERED AT 15:06:06 ON 02 APR 2009

=> file medline embase biosis caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                        ENTRY    SESSION
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FILE 'MEDLINE' ENTERED AT 15:06:29 ON 02 APR 2009

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FILE 'CAPLUS' ENTERED AT 15:06:29 ON 02 APR 2009
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=> s Bengtsson B?/AU
L1        2046 BENGTSSON B?/AU

=> S L1 AND (MULTIPLE(W)SYSTEM(W)ATROPHY OR Parkinson(W)Plus(W)syndromes)
L2           1 L1 AND (MULTIPLE(W) SYSTEM(W) ATROPHY OR PARKINSON(W) PLUS(W)
               SYNDROMES)

=> s (GROWTH(W)HORMONE OR HUMAN(W)GROWTH(W)HORMONE OR GH OR HGH)
L3      254713 (GROWTH(W) HORMONE OR HUMAN(W) GROWTH(W) HORMONE OR GH OR HGH)

=> S L3 AND (MULTIPLE(W)SYSTEM(W)ATROPHY)
L4           89 L3 AND (MULTIPLE(W) SYSTEM(W) ATROPHY)

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5           45 DUP REM L4 (44 DUPLICATES REMOVED)

=> dis ibib abs 15 1-45

L5   ANSWER 1 OF 45     MEDLINE on STN                  DUPLICATE 1
ACCESSION NUMBER:   2009178789     IN-PROCESS
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DOCUMENT NUMBER: PubMed ID: 19195665
TITLE: Longitudinal one-year study of levels and stoichiometry of neurofilament heavy and light chain concentrations in CSF in patients with multiple system atrophy.
AUTHOR: Petzold Axel; Thompson Edward J; Keir Geoffrey; Quinn Niall; Holmberg Bjorn; Dizdar Nil; Wenning Gregor K; Rascol Olivier; Tolosa Eduardo; Rosengren Lars
CORPORATE SOURCE: Department of Neuroimmunology, UCL Institute of Neurology, Queen Square, London WC1N 3BG, UK.
SOURCE: Journal of the neurological sciences, (2009 Apr 15) Vol. 279, No. 1-2, pp. 76-9. Electronic Publication: 2009-02-04.
Journal code: 0375403. ISSN: 0022-510X.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: NONMEDLINE; IN-DATA-REVIEW; IN-PROCESS; NONINDEXED; Priority Journals
ENTRY DATE: Entered STN: 4 Mar 2009
Last Updated on STN: 4 Mar 2009

AB BACKGROUND: Two cerebrospinal fluid (CSF) biomarkers specific for neurodegeneration have recently emerged - the neurofilament light (NfL, 68 kDa) and heavy (NfH, 190-210 kDa) chains. This study investigated whether the CSF NfH and NfL levels or their stoichiometric relationship changed over time in a neuroprotective treatment trial. METHODS: Serial CSF samples (n=95) from 42 patients with multiple system atrophy (MSA), half randomized to treatment with recombinant human growth hormone (r-hGH) and the other half to placebo, were collected at baseline, 6 and 12 months. The concentration of CSF NfL and NfH was determined using standard ELISAs. RESULTS: There was no consistent change in the levels of either protein over the 12 month period, or between treatment with active r-hGH versus placebo. The molar stoichiometry of CSF NfL:NfH was 4:1 (R=0.37, p=0.0002) and increased following treatment with r-hGH (p=0.03). CONCLUSION: These results indicate that CSF levels of both NfL and NfH on their own are not useful markers of disease progression in MSA, at least over a 12-month period. Future work is needed to elucidate whether the CSF stoichiometry and dynamics of Nf subunits in individual patients are a feature of the underlying pathology and of diagnostic or prognostic value.

L5 ANSWER 2 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:1280413 CAPLUS
DOCUMENT NUMBER: 149:491589
TITLE: The ANKRD 16 protein as a regulator of degradation of misfolded proteins and its use in the diagnosis and treatment of neurological proteinopathies
INVENTOR(S): Ackerman, Susan; Lee, Jeong Woong
PATENT ASSIGNEE(S): The Jackson Laboratory, USA
SOURCE: PCT Int. Appl., 136pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008127680	A2	20081023	WO 2008-US4757	20080411
WO 2008127680	A3	20090129		

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES,

FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,
PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,
TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA
PRIORITY APPLN. INFO.: US 2007-923155P P 20070411
US 2007-937221P P 20070626

AB The protein encoded by the ANKRD16 gene is shown to play a role in the regulation of misfolded protein degradation through the ubiquitin-proteasome pathway. Deficiencies in the degradation of misfolded proteins play a role in the etiol. of a number of neurodegenerative diseases and fertility disorders. The ANKRD16 gene product may therefore be useful in the diagnosis and treatment of these diseases. Methods for identifying agents that protect against cell death are also provided. The gene was identified as a suppressor of the sticky (sti) mutation in mouse. The gene was cloned based upon its map position and the use of BAC clones to suppress the sti phenotype.

L5 ANSWER 3 OF 45 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
ACCESSION NUMBER: 2008:574199 BIOSIS
DOCUMENT NUMBER: PREV200800574198
TITLE: Clinical applications: MSA and Parkinson's disease.
AUTHOR(S): Senard, Jean-Michel [Reprint Author]
CORPORATE SOURCE: Toulouse Univ, INSERM, U858, Toulouse, France
SOURCE: European Journal of Neurology, (AUG 2008) Vol. 15, No. Suppl. 3, pp. 404.
Meeting Info.: 12th Congress of the European-Federation-of-Neurological-Societies. Madrid, SPAIN. August 23 -26, 2008. European Federat Neurol Soc.
ISSN: 1351-5101.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 22 Oct 2008
Last Updated on STN: 29 Oct 2008

L5 ANSWER 4 OF 45 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2008083748 MEDLINE
DOCUMENT NUMBER: PubMed ID: 18044703
TITLE: The arginine growth hormone stimulation test in bradykinetic-rigid parkinsonisms.
AUTHOR: Pellecchia Maria Teresa; Longo Katia; Manfredi Michela; Lucetti Claudio; Cossu Giovanni; Petrone Alfredo; Marconi Roberto; Sensi Mariachiara; Epifanio Antonio; Eleopra Roberto; Marchese Roberta; Scaravilli Tomaso; Morgante Letterio; Abbruzzese Giovanni; Bonuccelli Ubaldo; Donati Edoardo; Pivonello Rosario; Colao Annamaria; Barone Paolo
CORPORATE SOURCE: Department of Neurological Sciences, University of Naples Federico II, Naples, Italy.
SOURCE: Movement disorders : official journal of the Movement Disorder Society, (2008 Jan 30) Vol. 23, No. 2, pp. 190-4.
Journal code: 8610688. E-ISSN: 1531-8257.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals

ENTRY MONTH: 200805
ENTRY DATE: Entered STN: 5 Feb 2008
Last Updated on STN: 9 May 2008
Entered Medline: 8 May 2008

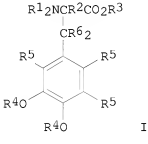
AB The arginine growth hormone (GH) stimulation test differentiates the Parkinsonian variant of multiple system atrophy (MSA-P) from idiopathic Parkinson's disease (PD). Our aim was to evaluate the accuracy of the arginine GH stimulation test in distinguishing between PSP, MSA-P, and PD. We measured the GH response to arginine in serum samples of 26 MSA-P, 23 PSP, and 26 PD patients, and in 80 healthy controls. We used ANOVA followed by the Bonferroni test to compare GH values and peaks among groups. We used receiver operating characteristic curve analysis to establish the arginine cut-off level that best differentiated between MSA-P, PSP, and PD. The GH peak was significantly lower (P < 0.01) in MSA-P (1.46 +/- 0.29 microg/L) than in both PD (8.74 +/- 0.98 microg/L) and PSP (6.64 +/- 0.82 microg/L) patients, and controls (8.59 +/- 0.44 microg/L). Growth hormone peaked later in PSP patients than in PD patients and controls. At a cut-off level of 4 microg/L, arginine test distinguished MSA-P from PD with a sensitivity of 92% and a specificity of 96%, and MSA-P from PSP with a sensitivity of 78% and a specificity of 96%. The GH response to arginine differentiates MSA-P from PD and PSP with a good diagnostic accuracy. The neuroendocrine response to arginine of PSP patients differed from that of MSA-P patients, but was not identical to that of normal controls and PD patients. Our results suggest that the impairment of the central mechanisms modulating GH release differs between PSP and MSA-P. 2007 Movement Disorder Society

L5 ANSWER 5 OF 45 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
ACCESSION NUMBER: 2008:500638 BIOSIS
DOCUMENT NUMBER: PREV200800500637
TITLE: Arginine does not distinguish cerebellar Multiple System Atrophy from other ataxias.
AUTHOR(S): Gardner, Raquel C. [Reprint Author]; Schmahmann, Jeremy D.
CORPORATE SOURCE: Boston, MA USA
SOURCE: Neurology, (MAR 11 2008) Vol. 70, No. 11, Suppl. 1, pp. A176.
Meeting Info.: 60th Annual Meeting of the American-Academy-of-Neurology. Chicago, IL, USA. April 12 -19, 2008. Amer Acad Neurol.
CODEN: NEURAI. ISSN: 0028-3878.
DOCUMENT TYPE: Conference; (Meeting)
Conference; (Meeting Poster)
LANGUAGE: English
ENTRY DATE: Entered STN: 10 Sep 2008
Last Updated on STN: 10 Sep 2008

L5 ANSWER 6 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:933839 CAPLUS
DOCUMENT NUMBER: 147:301490
TITLE: Preparation of deuterated catecholamine derivatives and medicaments containing them
INVENTOR(S): Alken, Rudolf-Giesbert; Schneider, Frank
PATENT ASSIGNEE(S): Birds Pharma G.m.b.H. Berolina Innovative Research & Development Services, Germany
SOURCE: PCT Int. Appl., 45pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007093450	A2	20070823	WO 2007-EP1555	20070216
WO 2007093450	A3	20070927		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
AU 2007214622	A1	20070823	AU 2007-214622	20070216
CA 2642593	A1	20070823	CA 2007-2642593	20070216
EP 1991522	A2	20081119	EP 2007-703542	20070216
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS				
IN 2008MN01665	A	20081219	IN 2008-MN1665	20080804
MX 2008010268	A	20080821	MX 2008-10268	20080811
US 20090018191	A1	20090115	US 2008-224120	20080818
CN 101384545	A	20090311	CN 2007-80005912	20080818
KR 2008106539	A	20081208	KR 2008-722011	20080909
PRIORITY APPLN. INFO.:			DE 2006-102006008316A	20060217
			WO 2007-EP1555 W	20070216
OTHER SOURCE(S):		MARPAT 147:301490		

GI



I

AB The invention relates to deuterated catecholamine derivs. I [R1-R6 are H or D; R1, R3, R4 may also be a group that is easily hydrolytically or enzymically cleavable under physiol. conditions; R3 may also be C1-C6 alkyl or C5-C6-cycloalkyl or deuterated derivs.], including pharmaceutically-acceptable salts and stereoisomers, enantiomers or diastereomers, as well as pharmaceuticals containing these compds. In addition, the invention concerns the use of deuterated catecholamine derivs. in combination with enzyme inhibitors for the treatment of dopamine deficiency diseases or diseases which are based on disrupted tyrosine transport or disrupted tyrosine decarboxylase, as well as other disorders. Thus, L-2-amino-2,3(S)-dideutero-3-(3,4-dihydroxyphenyl)propionic acid was prepared (II) from 2-(acetylamino)-3-methoxy-4-acetoxycinnamic acid in methanol containing NaOH by deuteration using Mansanto catalyst. The increase

of striatal dopamine following administration of 50 mg/kgL II was three-fold higher than that measured after administration of L-DOPA.

L5 ANSWER 7 OF 45 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2007439772 MEDLINE
DOCUMENT NUMBER: PubMed ID: 17469198
TITLE: Safety and tolerability of growth hormone therapy in multiple system atrophy: a double-blind, placebo-controlled study.
AUTHOR: Holmberg Bjorn; Johansson Jan-Ove; Poewe Werner; Wenning Gregor; Quinn Niall P; Mathias Chris; Tolosa Eduardo; Cardozo Adriana; Dizdar Nil; Rascol Olivier; Slaoui Tarik
CORPORATE SOURCE: Movement Disorders Unit, Sahlgrenska University Hospital, Goteborg University, Goteborg, Sweden. (Growth-Hormone MSA Study Group; European MSA Study Group). bjorn.holmberg@neuro.gu.se
SOURCE: Movement disorders : official journal of the Movement Disorder Society, (2007 Jun 15) Vol. 22, No. 8, pp. 1138-44.
Journal code: 8610688. ISSN: 0885-3185.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(CLINICAL TRIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200709
ENTRY DATE: Entered STN: 31 Jul 2007
Last Updated on STN: 8 Sep 2007
Entered Medline: 7 Sep 2007
AB The objective of this study was to investigate tolerability and possible neurotrophic effects of growth hormone (GH) in treatment of multiple system atrophy (MSA). In this double-blind pilot study, MSA patients were randomized to recombinant human growth hormone (r-hGH, n = 22), 1 mg every second day (6 months) followed by alternating daily injections of 1 mg and 0.5 mg (6 months), or matched placebo (n = 21). Safety analysis demonstrated no obvious between-group differences. In both groups, there was progressive worsening of Unified Parkinson's Disease Rating Scale total score, which tended to be less in r-hGH-treated patients (12.9% at 6 months, 25.3% at 12 months) than in placebo (17.0% and 35.7%). Similarly, there was a trend to less worsening in Unified MSA Rating Scale total score with r-hGH (13.2% and 21.2%) than with placebo (21.1% and 36.5%). Cardiovascular reflex autonomic testing also tended to show less deterioration with r-hGH than with placebo at 12 months. However, 95% CI did not indicate treatment differences for any efficacy measures. In conclusion, r-hGH administration in MSA patients for up to 1 year appears safe and might influence disease symptoms, signs and, possibly, progression. The results support further studies utilizing higher doses in more patients.

L5 ANSWER 8 OF 45 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 2007638694 MEDLINE
DOCUMENT NUMBER: PubMed ID: 17826894
TITLE: Assessment of autonomic dysfunction of multiple system atrophy with laryngeal abductor paralysis as an early manifestation.
AUTHOR: Deguchi Kazushi; Ikeda Kazuyo; Shimamura Mieko; Urai Yoshiteru; Tsukaguchi Masago; Touge Tetsuo; Takeuchi Hiroaki; Sasaki Iwao; Kuriyama Shigeki

CORPORATE SOURCE: Department of Gastroenterology and Neurology, Kagawa University School of Medicine, 1750-1 Ikenobe, Miki-cho, Kita-gun, Kagawa 761-0793, Japan..
kdeguchi@med.kagawa-u.ac.jp
SOURCE: Clinical neurology and neurosurgery, (2007 Dec) Vol. 109, No. 10, pp. 892-5. Electronic Publication: 2007-09-10.
Journal code: 7502039. ISSN: 0303-8467.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: (CASE REPORTS)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200801
ENTRY DATE: Entered STN: 30 Oct 2007
Last Updated on STN: 10 Jan 2008
Entered Medline: 9 Jan 2008

AB Laryngeal abductor palsy (LAP) is common in the advanced stages of multiple system atrophy (MSA). However, occurrence of LAP in the early stages might make a diagnosis of MSA difficult. To search for a clue to diagnosis of MSA with LAP as an early manifestation, we assessed the clinical features of autonomic dysfunction and the central cardiovascular control circuits in two MSA patients who had LAP as a cardinal symptom in the early stages. Development of autonomic dysfunction was preceded or followed by LAP. The autonomic symptom occurring predominantly in the earliest stages was urinary disturbance rather than orthostatic hypotension. Although screening cardiovascular autonomic function tests did not conclusively indicate a diagnosis of MSA, vasopressin release in response to head-up tilt and growth hormone response to clonidine administration demonstrated inappropriate responses, suggesting that the noradrenergic neurons of the caudal ventrolateral medulla were impaired. Diagnosis of atypical MSA with LAP in the early stages might be accelerated by a detailed investigation focused on urinary symptoms and neuroendocrine approaches.

L5 ANSWER 9 OF 45 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
ACCESSION NUMBER: 2008:594 BIOSIS
DOCUMENT NUMBER: PREV200800000059
TITLE: Morphological substrate of autonomic failure and neurohormonal dysfunction in multiple system atrophy: impact on determining phenotype spectrum.
AUTHOR(S): Ozawa, Tetsutaro [Reprint Author]
CORPORATE SOURCE: Niigata Univ, Res Inst, 1 Asahimachi, Niigata 9518585, Japan
ozawa@bri.niigata-u.ac.jp
SOURCE: Acta Neuropathologica, (SEP 2007) Vol. 114, No. 3, pp. 201-211.
CODEN: ANPTAL. ISSN: 0001-6322.
DOCUMENT TYPE: Article
General Review; (Literature Review)
LANGUAGE: English
ENTRY DATE: Entered STN: 12 Dec 2007
Last Updated on STN: 12 Dec 2007

AB Autonomic failure is a prominent clinical feature of patients with multiple system atrophy (MSA). Neurohormonal dysfunction is also a frequent accompaniment in patients with MSA. The determination of the pathological involvement of the autonomic neurons, which are responsible for circadian rhythms and responses to stress, provides new insight into autonomic failure and neurohormonal dysfunction in MSA. The disruptions of circadian rhythms and responses to stress may underlie the impairment of homeostatic integration responsible for

cardiovascular and respiratory failures. These notions lead to the hypothesis that a pathological involvement of autonomic neurons is a significant factor of the poor prognosis of MSA. Beyond this perspective, endeavors to find the morphological phenotype that represents a predominant loss of autonomic neurons may elucidate the full spectrum of pathological involvements in MSA.

L5 ANSWER 10 OF 45 EMBASE COPYRIGHT (c) 2009 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2007326358 EMBASE
TITLE: Research highlights from the literature.
AUTHOR: Jordan, Jens, Dr. (correspondence)
CORPORATE SOURCE: Franz Volhard Clinical Research Center, Max Delbruck Center, Charite Campus Buch, Haus 129, Wiltbergstr. 50, 13125 Berlin, Germany. jens.jordan@charite.de
SOURCE: Clinical Autonomic Research, (Jun 2007) Vol. 17, No. 3, pp. 149-152.
Refs: 4
ISSN: 0959-9851 CODEN: CAURE9
COUNTRY: Germany
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 018 Cardiovascular Diseases and Cardiovascular Surgery
037 Drug Literature Index
038 Adverse Reactions Titles
008 Neurology and Neurosurgery
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 19 Jul 2007
Last Updated on STN: 19 Jul 2007

AB The peptide catestatin is produced from the precursor protein chromogranin A. Apparently, catestatin regulates autonomic nervous system function through blockade of ganglionic nicotinic acetylcholine receptors. A recent study suggests that genetic polymorphisms affecting catestatin may have a bearing on human blood pressure regulation. In a study in autonomic failure patients, inhibition of carbohydrate reabsorption with the alpha glucosidase inhibitor acarbose attenuated postprandial hypotension. The study may be therapeutically relevant. The neuronal norepinephrine transporter affects cardiovascular regulation through combination of central nervous and peripheral mechanisms. In a new study, pharmacological norepinephrine transporter inhibition elicited a profound pressor response in patients with central autonomic failure due to multiple system atrophy. Blood pressure did not respond in patients with peripheral autonomic neuropathies. The investigators suggest that the pressor response results from peripheral norepinephrine transporter inhibition that is unopposed by a central sympatholytic effect. In vitro, human growth hormone has a neuroprotective effect. A small placebo-controlled clinical trial evaluated the safety of human recombinant growth hormone treatment in patients with multiple system atrophy. The intervention was well tolerated. Unfortunately, the study was to small to evaluate efficacy. .COPYRGT. 2007 Springer.

L5 ANSWER 11 OF 45 MEDLINE on STN

ACCESSION NUMBER: 2007013968 MEDLINE
DOCUMENT NUMBER: PubMed ID: 17210972
TITLE: Differential diagnosis of Parkinson's disease: a new blood test?.
AUTHOR: Hiner Bradley C
SOURCE: Clinical medicine & research, (2006 Dec) Vol. 4, No. 4, pp. 246-7.
Journal code: 101175887. ISSN: 1539-4182.

Report No.: NLM-PMC1764800.
PUB. COUNTRY: United States
DOCUMENT TYPE: Commentary
Editorial
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200703
ENTRY DATE: Entered STN: 10 Jan 2007
Last Updated on STN: 30 Mar 2007
Entered Medline: 29 Mar 2007

L5 ANSWER 12 OF 45 MEDLINE on STN DUPLICATE 5
ACCESSION NUMBER: 2006710395 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16958123
TITLE: Multiple system atrophy is distinguished from idiopathic Parkinson's disease by the arginine growth hormone stimulation test.
AUTHOR: Pellecchia Maria Teresa; Longo Katia; Pivonello Rosario; Lucetti Claudio; Marchese Roberta; Spampani Annalisa; Manfredi Michela; Epifanio Antonio; Sensi Mariachiara; Scaravilli Tomaso; Bracco Fulvio; Eleopra Roberto; Morgante Letterio; Donati Edoardo; Marconi Roberto; Abbruzzese Giovanni; Bonuccelli Ubaldo; Zappia Mario; Colao Annamaria; Barone Paolo
CORPORATE SOURCE: Department of Neurological Sciences, University of Naples Federico II, Naples, Italy.
SOURCE: Annals of neurology, (2006 Nov) Vol. 60, No. 5, pp. 611-5.
Journal code: 7707449. ISSN: 0364-5134.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200701
ENTRY DATE: Entered STN: 7 Dec 2006
Last Updated on STN: 19 Jan 2007
Entered Medline: 18 Jan 2007
AB OBJECTIVE: Multiple system atrophy (MSA) may be difficult to distinguish from idiopathic Parkinson's disease (PD). Our aim was to evaluate the accuracy of the arginine growth hormone (GH) stimulation test in distinguishing between MSA and PD in large populations of patients. METHODS: We measured the GH response to arginine in 69 MSA (43 MSAp [parkinsonism as the main motor feature] and 26 MSAc [cerebellar features predominated]) patients, 35 PD patients, and 90 healthy control subjects. We used receiver-operating curve analysis to establish the arginine cutoff value that best differentiated between MSA and PD. RESULTS: The GH response to arginine was significantly lower ($p < 0.01$) in MSA than in either PD patients or control subjects. At a cutoff level of 4 microg/L, arginine distinguished MSAp from PD with a sensitivity and specificity of 91% and MSAc from PD with a sensitivity of 96% and specificity of 91%. The arginine test had a positive predictive value for MSA of 95%. The GH response to arginine was not affected by disease duration or severity, MSA motor subtype, pyramidal signs, response to dopaminergic therapy, or magnetic resonance imaging findings. INTERPRETATION: The GH response to arginine differentiates MSA from PD with a high diagnostic accuracy. The results suggest an impairment of cholinergic central systems modulating GH release in MSA.

L5 ANSWER 13 OF 45 MEDLINE on STN DUPLICATE 6
ACCESSION NUMBER: 2006263563 MEDLINE

DOCUMENT NUMBER: PubMed ID: 16404729
TITLE: Hemodynamic effects of clonidine in two contrasting models of autonomic failure: multiple system atrophy and pure autonomic failure.
AUTHOR: Young Tim M; Asahina Masato; Watson Laura; Mathias Christopher J
CORPORATE SOURCE: Neurovascular Medicine Unit, Faculty of Medicine, Imperial College London at St. Mary's Hospital, London, United Kingdom.. tim.young@imperial.ac.uk
SOURCE: Movement disorders : official journal of the Movement Disorder Society, (2006 May) Vol. 21, No. 5, pp. 609-15. Journal code: 8610688. ISSN: 0885-3185.
PUB. COUNTRY: United States
DOCUMENT TYPE: (CLINICAL TRIAL)
(COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200610
ENTRY DATE: Entered STN: 12 May 2006
Last Updated on STN: 19 Oct 2006
Entered Medline: 18 Oct 2006

AB We assessed the effects of clonidine on blood pressure (BP) and heart rate (HR) in multiple system atrophy (MSA), where the autonomic nervous system lesion site is preganglionic, and in pure autonomic failure (PAF), where it is postganglionic. In normal subjects, intravenous infusion of the selective alpha2-adrenoceptor agonist clonidine reduces BP and plasma noradrenaline (NA) levels by means of central alpha2-adrenoceptor action, as well as inducing growth hormone (GH) release. Clonidine-induced GH release is impaired in MSA but spared in PAF. However, the hemodynamic effects of clonidine have not been studied extensively in these disorders. We examined intravenous clonidine test results (performed in our autonomic laboratories using the London Autonomic Units protocol) in 58 patients: 39 with probable MSA and 19 with PAF. Systolic BP (SBP), diastolic BP (DBP), HR, and NA levels were measured supine at baseline and for up to 60 minutes after clonidine. Clonidine resulted in a significant BP fall in MSA patients, which occurred earlier (within 15 minutes of clonidine) and to a greater extent than seen in PAF patients. MSA and PAF patients showed reduction in HR after clonidine administration, although this finding was significantly greater in MSA than in PAF patients. NA levels decreased significantly after clonidine administration in both groups. Although basal NA levels were lower in PAF than in MSA patients, there was no difference in NA reduction relative to baseline between groups. MSA patients showed significant negative correlation between basal NA levels and BP response to clonidine. Clonidine infusion reduces BP and HR in both MSA and PAF groups but to a greater extent in MSA patients. The greater vasodepressor action of clonidine in MSA patients suggests that there is partial preservation of brainstem sympathetic outflow pathways in MSA and may reflect its action at sites in the brainstem and spinal cord that were in part functionally preserved in MSA. Despite similar degrees of NA reduction after clonidine administration, the vasodepressor effect of clonidine was attenuated in PAF compared with MSA patients. This attenuation in PAF patients may reflect greater peripheral alpha2-adrenoceptor denervation supersensitivity due to the postganglionic lesion site. These BP differences, thus, may reflect the underlying lesion site in MSA and PAF, and the hemodynamic data after clonidine infusion may help differentiate these conditions.

L5 ANSWER 14 OF 45 MEDLINE on STN DUPLICATE 7

ACCESSION NUMBER: 2007013975 MEDLINE
DOCUMENT NUMBER: PubMed ID: 17210980
TITLE: Growth hormone stimulation tests in the differential diagnosis of Parkinson's disease.
AUTHOR: Pellecchia Maria Teresa; Pivonello Rosario; Colao Annamaria; Barone Paolo
CORPORATE SOURCE: Department of Neurological Sciences, University Federico II, Via Pansini 5, 80131 Naples, Italy.. pellec3@hotmail.com
SOURCE: Clinical medicine & research, (2006 Dec) Vol. 4, No. 4, pp. 322-5. Ref: 24
Journal code: 101175887. ISSN: 1539-4182.
Report No.: NLM-PMC1764807.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200703
ENTRY DATE: Entered STN: 10 Jan 2007
Last Updated on STN: 30 Mar 2007
Entered Medline: 29 Mar 2007
AB Idiopathic Parkinson's disease (IPD) is a common neurodegenerative disorder whose differential diagnosis from other forms of atypical parkinsonism, for instance multiple system atrophy (MSA) or progressive supranuclear palsy, may be difficult, especially in the early stages. Growth hormone stimulation tests have been recently reported to be useful in the differential diagnosis between IPD and MSA. Both clonidine, an alpha(2)-adrenoceptor agonist, and arginine, an amino acid activating the cholinergic system, have been used to assess growth hormone response in patients with IPD and MSA.This review summarizes the results of several studies and discusses the validity of these tests in the differential diagnosis of parkinsonisms.

L5 ANSWER 15 OF 45 MEDLINE on STN DUPLICATE 8
ACCESSION NUMBER: 2006180768 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16575624
TITLE: [Utility of the study of the vegetative nervous system in the differential diagnosis between Parkinson's disease and multiple system atrophy].
Utilidad del estudio del sistema nervioso vegetativo en el diagnostico diferencial entre la enfermedad de Parkinson y la atrofia multisistemica.
AUTHOR: Rouco I; Gomez J C; Lezcano E; Aniel-Quiroga M A; Velasco F; Barcena J; Perez Bas M; Hurtado P; Cruz Lachen M; Zarranz J J
CORPORATE SOURCE: Servicio de Neurologia, Hospital de Cruces, Baracaldo, Vizcaya.. i.rouco@telefonica.net
SOURCE: Neurologia (Barcelona, Spain), (2006 Apr) Vol. 21, No. 3, pp. 119-23.
Journal code: 9005460. ISSN: 0213-4853.
PUB. COUNTRY: Spain
DOCUMENT TYPE: (ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Spanish
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200610
ENTRY DATE: Entered STN: 1 Apr 2006
Last Updated on STN: 4 Oct 2006
Entered Medline: 3 Oct 2006
AB INTRODUCTION: The aim of this study is to show if the exploration of the

autonomic nervous system is useful to improve the specificity of clinical criteria of Parkinson's Disease (PD) and Multiple System Atrophy (MSA). PATIENTS AND METHODS: 20 patients with PD and 13 patients with MSA were studied. After 12 hours in off medication, NE and GH were measured in supine position and NE after 5 minutes standing. Later, GH levels were recorded at 15, 30, 45 and 60 minutes after a dose of 0.005 mg/kg of apomorphine. Finally, analysis of the symptoms of autonomic dysfunction and levodopa test were carried out. RESULTS: Sympathetic response to postural changes was significantly higher in patients with PD (NE increase in relation to basal: PD: 170.90 +/- 110.08 pg/ml; MSA: 91.33 +/- 73.79 pg/ml; p = 0.029). No differences were found in the response of GH to apomorphine (GH peak at 45 minutes: PD: 2.37 +/- 2.7 ng/ml; MSA: 1.69 +/- 1.90 ng/ml; ns). The symptoms of autonomic dysfunction were more frequently in patients with MSA. The stridor was specific to MSA. Improvement in motor scores in the levodopa test was higher in patients with PD (PD: 39.7 %; MSA: 17.89; p = 0.019). DISCUSSION: Sympathetic response to postural changes, description of symptoms of autonomic dysfunction, and motor response to levodopa test are useful tools in order to improve specificity of the diagnostic criteria of PD and MSA. The GH test with apomorphine was not useful for a differential diagnosis.

L5 ANSWER 16 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:	2005:136592 CAPLUS
DOCUMENT NUMBER:	142:191648
TITLE:	Use of a substance that stimulates signaling of human growth hormone receptor in treating Parkinsonism-plus syndrome
INVENTOR(S):	Bengtsson, Bengt-Ake
PATENT ASSIGNEE(S):	Ares Trading S. A., Switz.
SOURCE:	PCT Int. Appl., 71 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005014033	A1	20050217	WO 2003-EP50348	20030729
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2532821	A1	20050217	CA 2003-2532821	20030729
AU 2003262552	A1	20050225	AU 2003-262552	20030729
EP 1651250	A1	20060503	EP 2003-817952	20030729
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003018426	A	20060801	BR 2003-18426	20030729
CN 1838966	A	20060927	CN 2003-827096	20030729
JP 2007515375	T	20070614	JP 2005-507528	20030729
NZ 544695	A	20081128	NZ 2003-544695	20030729
MX 2006000954	A	20060504	MX 2006-954	20060124
KR 2006079183	A	20060705	KR 2006-701726	20060125
NO 2006001004	A	20060426	NO 2006-1004	20060228

US 20070066519 A1 20070322 US 2006-595076 20060907
PRIORITY APPLN. INFO.: WO 2003-EP50348 W 20030729
AB The invention relates to the use of a substance, which binds to and initiates signaling of the human growth hormone (hGH) receptor or a substance, which stimulates release or potentiates the activity of endogenous hGH, for treatment and/or prevention of Parkinsonism-Plus Syndromes. In particular, the invention relates to the use of hGH for the treatment and/or prevention of Multiple System Atrophy.
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 17 OF 45 MEDLINE on STN DUPLICATE 9
ACCESSION NUMBER: 2006465175 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16049636
TITLE: The European Multiple System Atrophy-Study Group (EMSA-SG).
AUTHOR: Geser F; Seppi K; Stampfer-Kountchev M; Kollensperger M; Diem A; Ndayisaba J P; Ostergaard K; Dupont E; Cardozo A; Tolosa E; Abele M; Dodel R; Klockgether T; Ghorayeb I; Yekhlef F; Tison F; Daniels C; Kopper F; Deuschl G; Coelho M; Ferreira J; Rosa M M; Sampaio C; Bozi M; Schrag A; Hooker J; Kim H; Scaravilli T; Mathias C J; Fowler C; Wood N; Quinn N; Widner H; Nilsson C F; Lindvall O; Schimke N; Eggert K M; Oertel W; del Sorbo F; Carella F; Albanese A; Pellecchia M T; Barone P; Djaldetti R; Meco G; Colosimo C; Gonzalez-Mandly A; Berciano J; Gurevich T; Giladi N; Galitzky M; Ory F; Rascol O; Kamm C; Buerk K; Maass S; Gasser T; Poewe W; Wenning G K
CORPORATE SOURCE: Clinical Department of Neurology, Innsbruck Medical University, Austria. (EMSA-SG).
SOURCE: Journal of neural transmission (Vienna, Austria : 1996), (2005 Dec) Vol. 112, No. 12, pp. 1677-86. Electronic Publication: 2005-07-29. Ref: 25
Journal code: 9702341. ISSN: 0300-9564.
PUB. COUNTRY: Austria
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T) General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200610
ENTRY DATE: Entered STN: 8 Aug 2006
Last Updated on STN: 13 Oct 2006
Entered Medline: 12 Oct 2006
AB Introduction. The European Multiple System Atrophy-Study Group (EMSA-SG) is an academic network comprising 23 centers across Europe and Israel that has constituted itself already in January 1999. This international forum of established experts under the guidance of the University Hospital of Innsbruck as coordinating center is supported by the 5th framework program of the European Union since March 2001 (QLK6-CT-2000-00661). Objectives. Primary goals of the network include (1) a central Registry for European multiple system atrophy (MSA) patients, (2) a decentralized DNA Bank, (3) the development and validation of the novel Unified MSA Rating Scale (UMSARS), (4) the conduction of a Natural History Study (NHS), and (5) the planning or implementation of interventional therapeutic trials. Methods. The EMSA-SG Registry is a computerized data bank localized at the coordinating centre in Innsbruck collecting diagnostic and therapeutic data of MSA patients. Blood samples of patients and controls are recruited into the DNA Bank. The UMSARS is a novel specific rating

instrument that has been developed and validated by the EMSA-SG. The NHS comprises assessments of basic anthropometric data as well as a range of scales including the UMSARS, Unified Parkinson's Disease Rating Scale (UPDRS), measures of global disability, Red Flag list, MMSE (Mini Mental State Examination), quality of live measures, i.e. EuroQoL 5D (EQ-5D) and Medical Outcome Study Short Form (SF-36) as well as the Beck Depression Inventory (BDI). In a subgroup of patients dysautonomic features are recorded in detail using the Queen Square Cardiovascular Autonomic Function Test Battery, the Composite Autonomic Symptom Scale (COMPASS) and measurements of residual urinary volume. Most of these measures are repeated at 6-monthly follow up visits for a total study period of 24 months. Surrogate markers of the disease progression are identified by the EMSA-SG using magnetic resonance and diffusion weighted imaging (MRI and DWI, respectively). Results. 412 patients have been recruited into the Registry so far. Probable MSA-P was the most common diagnosis (49% of cases). 507 patients donated DNA for research. 131 patients have been recruited into the NHS. There was a rapid deterioration of the motor disorder (in particular akinesia) by 26.1% of the UMSARS II, and - to a lesser degree - of activities of daily living by 16.8% of the UMSARS I in relation to the respective baseline scores. Motor progression was associated with low motor or global disability as well as low akinesia or cerebellar subscores at baseline. Mental function did not deteriorate during this short follow up period. Conclusion. For the first time, prospective data concerning disease progression are available. Such data about the natural history and prognosis of MSA as well as surrogate markers of disease process allow planning and implementation of multi-centre phase II/III neuroprotective intervention trials within the next years more effectively. Indeed, a trial on growth hormone in MSA has just been completed, and another on minocycline will be completed by the end of this year.

L5 ANSWER 18 OF 45 MEDLINE on STN DUPLICATE 10
ACCESSION NUMBER: 2005175740 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15807873
TITLE: Growth hormone response to arginine test distinguishes multiple system atrophy from Parkinson's disease and idiopathic late-onset cerebellar ataxia.
AUTHOR: Pellecchia Maria Teresa; Pivonello Rosario; Salvatore Elena; Faggiano Antongiulio; Barone Paolo; De Michele Giuseppe; Lombardi Gaetano; Colao Annamaria; Filla Alessandro
CORPORATE SOURCE: Department of Neurological Sciences, Federico II University, 80131 Naples, Italy.. colao@unima.it
SOURCE: Clinical endocrinology, (2005 Apr) Vol. 62, No. 4, pp. 428-33.
Journal code: 0346653. ISSN: 0300-0664.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: (COMPARATIVE STUDY)
(EVALUATION STUDIES)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200507
ENTRY DATE: Entered STN: 6 Apr 2005
Last Updated on STN: 6 Jul 2005
Entered Medline: 5 Jul 2005

AB OBJECTIVE: Multiple system atrophy (MSA) is difficult to distinguish from idiopathic Parkinson's disease (PD) and idiopathic late-onset cerebellar ataxia (ILOCA). This study aimed to evaluate GH response to three different GH stimulation tests in order to establish a reliable test to differentiate these

degenerative disorders. DESIGN: Twelve patients with MSA, 10 with PD, eight with ILOCA and 30 healthy controls entered the study. They were submitted to clonidine, arginine, and GH-releasing-hormone (GHRH) + arginine tests in a random manner on three different nonconsecutive days. The peak serum GH response was used as a primary variable for analysis of stimulation tests. By ROC analysis, the optimum cut-off level was considered as the cut-off with the maximal sum of sensitivity and specificity. RESULTS: After clonidine administration, GH peak was significantly lower in patients with MSA than in those with ILOCA ($P < 0.05$) and in the controls ($P < 0.001$). At the optimum cut-off level of 5 mU/l, the clonidine test distinguished patients with MSA from those with PD with a sensitivity and specificity of 78%. Moreover, this test distinguished patients with MSA from those with ILOCA with a sensitivity of 100% and a specificity of 75% at a cut-off level of 5 mU/l, and with a sensitivity of 75% and a specificity of 100% at the cut-off level of 7.6 mU/l. After arginine administration, the GH peak was significantly lower in patients with MSA than in those with ILOCA ($P = 0.001$) and in controls ($P < 0.001$). At the optimum cut-off level of 5 mU/l, the arginine test distinguished patients with MSA from those with PD with a sensitivity and a specificity of 100%. At a GH peak cut-off value of 3.6 mU/l the arginine test distinguished patients with MSA from those with ILOCA with a sensitivity and specificity of 100%. After GHRH + arginine administration, a significant GH increase was found in all groups of patients and controls. CONCLUSIONS: The GH response to arginine administration is impaired in MSA. Therefore, the arginine test showed the highest diagnostic accuracy to distinguish MSA from both PD and ILOCA, and could be used in the clinical practice of these neurodegenerative diseases.

ACCESSION NUMBER: 2005454158 EMBASE

TITLE: How to diagnose multiple system atrophy.

AUTHOR: Quinn, Niall P.
CORPORATE SOURCE: Sobell Department of Motor Neuroscience and Movement Disorders, Institute of Neurology, 7 Queen Square, London WC1N 3BG, United Kingdom. n.quinn@ion.ucl.ac.uk
AUTHOR: Quinn, N., Prof. (correspondence)
CORPORATE SOURCE: Sobell Department of Motor Neuroscience and Movement Disorders, Institute of Neurology, 7 Queen Square, London WC1N 3BG, United Kingdom. n.quinn@ion.ucl.ac.uk

SOURCE: Movement Disorders, (2005) Vol. 20, No. SUPPL. 12, pp. S5-S10.
Refs: 56
ISSN: 0885-3185 CODEN: MOVDEA
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 014 Radiology
023 Nuclear Medicine
037 Drug Literature Index
005 General Pathology and Pathological Anatomy
008 Neurology and Neurosurgery
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 27 Oct 2005
Last Updated on STN: 27 Oct 2005

AB The diagnosis of multiple system atrophy (MSA) in life remains entirely clinical. Consensus diagnostic criteria have been developed, but their use does not particularly render a diagnosis of MSA more accurate than are clinicians' diagnoses. Some patients may not fulfill the stipulated core diagnostic criteria, yet

display many so-called red flags pointing toward MSA. The additional usefulness of these red flags and of a variety of investigations currently is being investigated, with a view to some of them being incorporated in future sets of diagnostic criteria. .COPYRGT. 2005 Movement Disorder Society.

L5 ANSWER 20 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:452933 CAPLUS
DOCUMENT NUMBER: 141:37230
TITLE: Nuclear receptors as diagnostic and risk markers for disease and as targets for therapy
INVENTOR(S): Gaitanaris, George A.; Bergmann, John E.; Gracerov, Alexander; Hohmann, John; Li, Fusheng; Madisen, Linda; Mcilwain, Kellie L.; Pavlova, Maria N.; Vassilatis, Demetri; Zeng, Hongkui
PATENT ASSIGNEE(S): Nura, Inc., USA
SOURCE: PCT Int. Appl., 508 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004045369	A2	20040603	WO 2003-US36229	20031112
WO 2004045369	A3	20070301		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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AU 2003295500	A1	20040615	AU 2003-295500	20031112
PRIORITY APPLN. INFO.:			US 2002-426305P	P 20021114
			WO 2003-US36229	W 20031112

AB Methods of using nuclear receptors as diagnostic markers for disease and for increased risk of disease and in the development of therapeutics for treatment of such diseases are described. The proteins and the genes encoding them may be used in diagnosis. Transgenic animals carrying the human genes for these receptors may be used in screening for effectors. The invention also provides methods for identifying compds. (e.g., agonists or antagonists) using the nuclear receptor polypeptides and polynucleotides of the invention, and for treating conditions associated with nuclear receptor dysfunction with the nuclear receptor polypeptides, polynucleotides, or identified compds. The invention also provides diagnostic assays for detecting diseases or disorders associated with inappropriate nuclear receptor activity or levels.

L5 ANSWER 21 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:525997 CAPLUS
DOCUMENT NUMBER: 141:89365
TITLE: Deuterated catecholamine derivatives as well as these compounds containing drug
INVENTOR(S): Alken, Rudolf-Giesbert
PATENT ASSIGNEE(S): Turicum Drug Development AG, Switz.
SOURCE: Ger. Offen., 12 pp.
CODEN: GWXXBX

DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10261807	A1	20040701	DE 2002-10261807	20021219
CA 2513088	A1	20040708	CA 2003-2513088	20031218
WO 2004056724	A1	20040708	WO 2003-DE4203	20031218
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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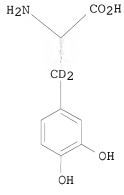
AU 2003289841	A1	20040714	AU 2003-289841	20031218
EP 1613571	A1	20060111	EP 2003-7813088	20031218
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
CN 1738782	A	20060222	CN 2003-80108990	20031218
JP 2006510686	T	20060330	JP 2004-561054	20031218
NZ 541047	A	20080926	NZ 2003-541047	20031218
MX 2005006408	A	20060308	MX 2005-6408	20050615
US 20060135615	A1	20060622	US 2005-539845	20050620

PRIORITY APPLN. INFO.: DE 2002-10261807 A 20021219
WO 2003-DE4203 W 20031218

OTHER SOURCE(S): MARPAT 141:89365
GI



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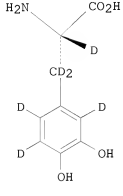

II

AB The present invention concerns preparation of deuterated catecholamine derivs. and their therapeutic use in treating medical conditions, either alone or in conjunction with other active agents. In addition the invention concerns the use of deuterated catecholamine derivs. as well as their physiol. compatible salts, or pharmaceutical compns. containing deuterated catecholamine derivs. or their physiol. compatible salts, for the treatment of illnesses of lack of dopamine and/or illnesses, which are based on disturbed tyrosine transport or disturbed tyrosine decarboxylase, such as Parkinson's disease, Restless Legs syndrome, dystonia, for the inhibition of prolactin secretion, for the stimulation of growth hormone release, for the treatment of the neurol. symptoms of

chronic manganese poisonings, of amyotrophic lateral sclerose and of multiple system atrophy, as well as the prophylaxis of psychoses, schizophrenia, and acute psychoses, preferably psychoses with neg. symptomatol., in particular also schizophrenia (no data). Thus, a DL-mixture of 2-acetylamino-3,3-dideuterio-3-(3,4-dimethoxyphenyl)propionic acid was resolved using (R)-1-phenethylamine, and the D- and L-free bases isolated; the L-fraction was N-deacetylated and O-demethylated to give title compound (I) in 96% yield. Similarly prepared were the D-I, and (II) in 92 and 84%, resp.

L5 ANSWER 22 OF 45 MEDLINE on STN DUPLICATE 11
ACCESSION NUMBER: 2004551521 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15390061
TITLE: Levodopa treatment does not affect low-dose apomorphine test in patients with Parkinson's disease.
AUTHOR: Happe Svenja; Tings Tobias; Helmschmied Kathrin; Neubert Karin; Wuttke Wolfgang; Paulus Walter; Trenkwalder Claudia
CORPORATE SOURCE: Department of Clinical Neurophysiology, University of Gottingen, Germany.. shappe@gwdg.de
SOURCE: Movement disorders : official journal of the Movement Disorder Society, (2004 Dec) Vol. 19, No. 12, pp. 1511-5. Journal code: 8610688. ISSN: 0885-3185.
PUB. COUNTRY: United States
DOCUMENT TYPE: (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200504
ENTRY DATE: Entered STN: 4 Nov 2004
Last Updated on STN: 8 Apr 2005
Entered Medline: 7 Apr 2005

AB Challenge with low-dose apomorphine causes a significant rise in growth hormone (GH) in patients with Parkinson's disease (PD) compared to controls and patients with multiple system atrophy (MSA) who have not previously received dopaminergic treatment. To date, it has not been demonstrated whether an apomorphine-induced rise in GH can still be detected in PD patients who are currently treated with levodopa. We investigated whether an ongoing treatment with levodopa influences the GH response to subcutaneously applied low-dose apomorphine in PD patients. We studied 44 patients with idiopathic PD using the low-dose apomorphine test. Twenty-three patients were under treatment with levodopa and 21 patients were without any dopaminergic therapy. GH and cortisol levels were analyzed at time of injection and 45 minutes and 60 minutes after subcutaneous apomorphine injection. Forty-five minutes after apomorphine injection, there was no significant difference between the mean rise in plasma GH in untreated PD patients compared with levodopa-treated patients (P = 0.235). There was no increase of cortisol levels in each treatment group. Age, sex, duration, and severity of the disease did not show a covariate effect with GH levels. A small group of PD patients (n = 8) treated with dopamine agonists and a small group of patients with MSA (n = 5) as well as patients with vascular parkinsonism (n = 5) did not show any increase of GH. Our data suggest that the apomorphine-induced rise in GH does not depend on previous levodopa treatment in PD patients but, as expected, is blocked by dopamine agonists and is not present in patients with other than idiopathic parkinsonian syndrome. Thus, the low-dose apomorphine test may also be a useful biological marker in the early differential diagnosis of PD patients who have already received levodopa treatment.

L5 ANSWER 23 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:757811 CAPLUS
DOCUMENT NUMBER: 139:271092
TITLE: Novel metabolic targets and markers
INVENTOR(S): Watkins, Steven M.; Baillie, Rebecca A.
PATENT ASSIGNEE(S): Lipomics Technologies, Inc., USA
SOURCE: PCT Int. Appl., 60 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003078574	A2	20030925	WO 2003-US7242	20030307
WO 2003078574	A3	20040219		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2477909	A1	20030925	CA 2003-2477909	20030307
AU 2003225726	A1	20030929	AU 2003-225726	20030307
US 20040024065	A1	20040205	US 2003-383850	20030307
EP 1490076	A2	20041229	EP 2003-744631	20030307
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 20060141550	A1	20060629	US 2005-291272	20051130
US 20060084129	A1	20060420	US 2005-296829	20051206
US 7498128	B2	20090303		

PRIORITY APPLN. INFO.:

US 2002-363587P	P	20020311
US 2002-373912P	P	20020419
US 2002-401684P	P	20020806
US 2002-424949P	P	20021108
US 2002-436192P	P	20021224
US 2003-383671	B1	20030307
US 2003-383850	B1	20030307
WO 2003-US7242	W	20030307
US 2003-615966	A1	20030709

AB The present invention is based, in part, on the discovery that certain metabolites or metabolic pathways can be used as diagnostic or therapeutic markers. For example, phosphatidylethanolamine-N-methyltransferase (PEMT) activity and other metabolic activities or markers associated therewith can be used either as markers for diagnosing various conditions or as targets for therapeutic treatment of various disease conditions. In one embodiment, the present invention provides a method for regulating the level of a fatty acid in a system. The method includes decreasing the CDP-choline activity in the system. In still another embodiment, the present invention provides a method for regulating a lipoprotein component ratio in a system. The method includes regulating the PEMT activity in the system whereby regulating the lipoprotein component ratio in the system, wherein the lipoprotein component ratio is selected from the group consisting of cholesterol ester to phosphatidylcholine, cholesterol ester to apoprotein, free cholesterol to apoprotein, and triacylglyceride to phosphatidylcholine. In another embodiment, the present invention

provides a method of assessing the d. of a lipoprotein in a system. In yet another embodiment, the present invention provides a method for treating or preventing a cardiovascular or neurol. condition.
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 24 OF 45 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:376586 CAPLUS
DOCUMENT NUMBER: 138:379245
TITLE: Cyclo(prolylglycine) and methods of use to treat neural disorders
INVENTOR(S): Guan, Jian; Gluckman, Peter David; Sieg, Frank
PATENT ASSIGNEE(S): Neuronz Limited, N. Z.; Neuronz Biosciences, Inc.
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003039487	A2	20030515	WO 2002-US36235	20021112
WO 2003039487	A3	20040115		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002340465	A1	20030519	AU 2002-340465	20021112
US 20070244039	A1	20071018	US 2007-811911	20070612

PRIORITY APPLN. INFO.:

NZ 2001-515371	A	20011109
NZ 2001-515432	A	20011113
NZ 2001-515551	A	20011116
US 2002-405909P	P	20020826
US 2002-292732	A3	20021112
WO 2002-US36235	W	20021112

AB Embodiments of pharmaceutical compns. comprising cyclo(Pro-Gly) (cPG) and methods for use in treating neural degeneration are provided. The cPG substantially prevents toxic neural degeneration and cell death and promotes neurite outgrowth in neurons, especially cerebellar neurons. The neuroprotective and neuroregenerative effects of cPG are useful to treat behavioral neurol. deficits involving motor control pathways.
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 25 OF 45 MEDLINE on STN
ACCESSION NUMBER: 2003441619 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14502654
TITLE: Multiple system atrophy: an update.
AUTHOR: Wenning Gregor K; Geser Felix; Stampfer-Kountchev Michaela; Tison Francois
CORPORATE SOURCE: Department of Neurology, University Hospital, Innsbruck, Austria.. gregor.wenning@uibk.ac.at
SOURCE: Movement disorders : official journal of the Movement Disorder Society, (2003 Sep) Vol. 18 Suppl 6, pp. S34-42.

Journal code: 8610688. ISSN: 0885-3185.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200402
ENTRY DATE: Entered STN: 23 Sep 2003
Last Updated on STN: 25 Feb 2004
Entered Medline: 24 Feb 2004

AB Multiple system atrophy (MSA) is a sporadic neurodegenerative disorder that usually manifests in the early sixth decade of life and progresses relentlessly with a mean survival of 9 years. Clinically, MSA is dominated by autonomic/urogenital failure, which may be associated with either levodopa (L-dopa) -unresponsive parkinsonism in 80% of cases (MSA-P subtype) or with cerebellar ataxia in 20% of cases (MSA-C subtype). Pathologically, MSA is characterized by a neuronal multisystem degeneration and abnormal glial cytoplasmic inclusions containing alpha-synuclein aggregates. Pharmacological treatment of motor features is disappointing except for a transient L-dopa response in a minority of MSA-P patients. In contrast, autonomic and urogenital features of MSA should be identified early on, because they can be treated effectively in many instances. Neuroprotective strategies are presently unavailable, however, two multicentre European trials have been launched to evaluate the effects of riluzole and human recombinant growth hormone on disease progression in MSA. Clearly, further randomised, controlled trials are required to identify effective symptomatic or neuroprotective agents in MSA. Several in vivo models have become available to allow a careful preselection of candidate agents. Several research groups have been formed in Europe (EMSA-SG, NNIPPS) and United States (NAMSA-SG), providing a framework for coordinated trial activity in MSA.

L5 ANSWER 26 OF 45 EMBASE COPYRIGHT (c) 2009 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2003393167 EMBASE
TITLE: Multiple system atrophy: An Update.
AUTHOR: Wenning, Gregor K., Dr. (correspondence); Geser, Felix; Stampfer-Kountchev, Michaela; Tison, Francois
CORPORATE SOURCE: Department of Neurology, University Hospital, Anichstrasse 35, 6020 Innsbruck, Austria. gregor.wenning@uibk.ac.at
SOURCE: Movement Disorders, (2003) Vol. 18, No. SUPPL. 6, pp. S34-S42.
Refs: 74
ISSN: 0885-3185 CODEN: MOVDEA
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review; (Review)
FILE SEGMENT: 037 Drug Literature Index
038 Adverse Reactions Titles
005 General Pathology and Pathological Anatomy
008 Neurology and Neurosurgery
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 16 Oct 2003
Last Updated on STN: 16 Oct 2003

AB Multiple system atrophy (MSA) is a sporadic neurodegenerative disorder that usually manifests in the early sixth decade of life and progresses relentlessly with a mean survival of 9 years. Clinically, MSA is dominated by autonomic/urogenital failure, which may be associated with either levodopa (L-dopa) -unresponsive parkinsonism in 80% of cases (MSA-P subtype) or with cerebellar ataxia in

20% of cases (MSA-C subtype). Pathologically, MSA is characterized by a neuronal multisystem degeneration and abnormal glial cytoplasmic inclusions containing α-synuclein aggregates. Pharmacological treatment of motor features is disappointing except for a transient L-dopa response in a minority of MSA-P patients. In contrast, autonomic and urogenital features of MSA should be identified early on, because they can be treated effectively in many instances. Neuroprotective strategies are presently unavailable, however, two multicentre European trials have been launched to evaluate the effects of riluzole and human recombinant growth hormone on disease progression in MSA. Clearly, further randomised, controlled trials are required to identify effective symptomatic or neuroprotective agents in MSA. Several in vivo models have become available to allow a careful preselection of candidate agents. Several research groups have been formed in Europe (EMSA-SG, NNIPPS) and United States (NAMSA-SG), providing a framework for coordinated trial activity in MSA. .COPYRGT. 2003 Movement Disorder Society.

L5 ANSWER 27 OF 45 MEDLINE on STN DUPLICATE 12
ACCESSION NUMBER: 2002229887 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11967661
TITLE: Is clonidine-growth hormone stimulation a good test to differentiate multiple system atrophy from idiopathic Parkinson's disease?.
AUTHOR: Mathias C J; Kimber J; Watson L; Muthane U
SOURCE: Journal of neurology, (2002 Apr) Vol. 249, No. 4, pp. 488-9.
Journal code: 0423161. ISSN: 0340-5354.
PUB. COUNTRY: Germany: Germany, Federal Republic of
DOCUMENT TYPE: Commentary
Letter
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200212
ENTRY DATE: Entered STN: 23 Apr 2002
Last Updated on STN: 27 Dec 2002
Entered Medline: 24 Dec 2002

L5 ANSWER 28 OF 45 MEDLINE on STN DUPLICATE 13
ACCESSION NUMBER: 2002703255 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12465063
TITLE: Diagnosing multiple system atrophy with greater accuracy: combined analysis of the clonidine-growth hormone test and external anal sphincter electromyography.
AUTHOR: Lee Eun Ah; Kim B Joon; Lee Won Yong
CORPORATE SOURCE: Department of Neurology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea.
SOURCE: Movement disorders : official journal of the Movement Disorder Society, (2002 Nov) Vol. 17, No. 6, pp. 1242-7.
Journal code: 8610688. ISSN: 0885-3185.
PUB. COUNTRY: United States
DOCUMENT TYPE: (COMPARATIVE STUDY)
(EVALUATION STUDIES)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200303
ENTRY DATE: Entered STN: 17 Dec 2002
Last Updated on STN: 25 Mar 2003
Entered Medline: 24 Mar 2003
AB The clonidine-growth hormone test (CGHT) has been

proposed as a means of differentiating multiple system atrophy (MSA) from idiopathic Parkinson's disease (PD). However, it is controversial whether the CGHT is valid. We sought to confirm the validity of the CGHT and to compare the diagnostic accuracy of the CGHT with that of external anal sphincter electromyelography (Sph-EMG) for MSA. We performed the CGHT and the Sph-EMG on 21 PD patients, 23 patients with probable MSA of parkinsonian type (MSA-p), and 22 patients with probable MSA of cerebellar type (MSA-c). We compared the sensitivity, specificity, and positive and negative predictive values (PPV and NPV) of CGHT, Sph-EMG, and a combination of the two tests. We also evaluated the correlations of Unified Parkinson's Disease Rating Scale (UPDRS) scores with the results of the two tests. There was no significant difference between the UPDRS scores for the PD and MSA-p groups. Serum growth hormone concentrations after clonidine significantly increased in PD (mean increase +/- SEM, 4.19 +/- 0.92 ng/ml; P < 0.0001), but remained unchanged in both MSA-p (0.83 +/- 0.61 ng/ml) and MSA-c (1.45 +/- 0.58 ng/ml). The growth hormone responses to clonidine in MSA-p were significantly different from those in PD (P < 0.05). Abnormal, denervated Sph-EMG was observed in 95.7% of MSA-p, 86.4% of MSA-c, and 33.3% of PD patients. Compared to Sph-EMG, the CGHT was less sensitive but more specific in both MSA-p and MSA-c. The result of neither test correlated with the severity of parkinsonism. Interestingly, combining the results of the CGHT and Sph-EMG markedly increased the specificity (85.7% in the CGHT and 66.7% in Sph-EMG vs. 95.2% in the combination study) and the PPV in both MSA-p (85.7% and 75.9% vs. 94.4%) and MSA-c (82.4% and 73.1% vs. 91.7%). We confirm that the CGHT can distinguish MSA-p from PD. Its sensitivity is lower and its specificity higher than Sph-EMG. Compared to either test alone, combined testing with the CGHT and Sph-EMG increased specificity and PPV, thereby enhancing accuracy in the diagnosis of MSA.

L5 ANSWER 29 OF 45 MEDLINE on STN DUPLICATE 14
ACCESSION NUMBER: 2002480153 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12242540
TITLE: Stimulation of growth-hormone release with clonidine does not distinguish individual cases of idiopathic Parkinson's disease from those with striatonigral degeneration.
AUTHOR: Strijks E; van't Hof M; Sweep F; Lenders J W; Oyen W J; Horstink M W I M
CORPORATE SOURCE: Dept. of Neurology, University Medical Center, PO Box 9101, 6500 HB Nijmegen, The Netherlands.
SOURCE: Journal of neurology, (2002 Sep) Vol. 249, No. 9, pp. 1206-10.
Journal code: 0423161. ISSN: 0340-5354.
PUB. COUNTRY: Germany: Germany, Federal Republic of
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200212
ENTRY DATE: Entered STN: 21 Sep 2002
Last Updated on STN: 28 Dec 2002
Entered Medline: 27 Dec 2002
AB Multiple System Atrophy (MSA) and idiopathic Parkinson's disease (PD) can be difficult to distinguish. There is an ongoing debate about the diagnostic value of the growth-hormone response to clonidine (CGH-test) in PD and MSA. We investigated whether the CGH-test can identify individual patients in the early stages of PD (n = 21) and Striatonigral Degeneration (SND, n = 11), a particular variety of MSA. Patients were diagnosed on the basis of

clinical criteria and IBZM-SPECT. Clonidine induced a greater total serum growth-hormone production in PD than in SND (p = 0.01). However, taking the difference in prevalence of PD and SND into account, and because of the low likelihood ratios of the test, an increase of GH after clonidine increases the pre-test probability for PD by about only 5 %, while an absent response of GH also increases the pre-test probability for SND by about 5 %. We conclude that the CGH-test discriminates between groups of patients with PD and SND, but has little practical diagnostic value for identifying individual patients.

L5 ANSWER 30 OF 45 EMBASE COPYRIGHT (c) 2009 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2002139295 EMBASE
TITLE: Is clonidine-growth hormone stimulation a good test to differentiate multiple system atrophy from idiopathic Parkinson's disease? [6].
AUTHOR: Mathias, C.J., Prof. (correspondence); Kimber, J.; Watson, L.; Muthane, U.
CORPORATE SOURCE: I. Coll. Sci., Tech./Med. St Mary's, Institute of Neurology, University College London, London, United Kingdom.
SOURCE: Journal of Neurology, (2002) Vol. 249, No. 4, pp. 488-489. Refs: 8
ISSN: 0340-5354 CODEN: JNRYA9
COUNTRY: Germany
DOCUMENT TYPE: Journal; Letter
FILE SEGMENT: 037 Drug Literature Index
008 Neurology and Neurosurgery
LANGUAGE: English
ENTRY DATE: Entered STN: 2 May 2002
Last Updated on STN: 2 May 2002

L5 ANSWER 31 OF 45 MEDLINE on STN DUPLICATE 15

ACCESSION NUMBER: 2001171170 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11176962
TITLE: Increased growth hormone response to apomorphine in Parkinson disease compared with multiple system atrophy.
AUTHOR: Friess E; Kuempfel T; Winkelmann J; Schmid D; Uhr M; Rupprecht R; Holsboer F; Trenkwalder C
CORPORATE SOURCE: Max Planck Institute of Psychiatry, Kraepelinstr 10, D-80804 Munich, Germany.. friess@mpipsykl.mpg.de
SOURCE: Archives of neurology, (2001 Feb) Vol. 58, No. 2, pp. 241-6.
Journal code: 0372436. ISSN: 0003-9942.
PUB. COUNTRY: United States
DOCUMENT TYPE: (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200103
ENTRY DATE: Entered STN: 4 Apr 2001
Last Updated on STN: 4 Apr 2001
Entered Medline: 29 Mar 2001

AB BACKGROUND: Parkinson disease (PD) is often difficult to distinguish from parkinsonian syndromes of other causes in early stages of the disease. In search of a suitable endocrinologic challenge test, we investigated dopaminergic sensitivity in patients with de novo parkinsonian syndromes. OBJECTIVE: We measured the growth hormone (GH) response to a subthreshold dose of the dopamine 1-dopamine 2 receptor agonist apomorphine hydrochloride to differentiate parkinsonian syndromes

from PD. PATIENTS AND METHODS: Seventeen patients with a clinical diagnosis of PD, 16 patients with a clinical diagnosis of multiple system atrophy, and 11 healthy controls. The GH response to a subthreshold dosage of apomorphine and to somatorelin (GH-releasing factor) was tested in a randomized order; on the third day the protocol was repeated with a clinically effective dose of apomorphine. RESULTS: The GH response to the low dose of apomorphine was significantly increased in patients with PD when compared with patients with multiple system atrophy or the control subjects (multivariate analyses of covariance; univariate F test, all P<.05). In contrast, there were no significant group differences with use of the higher dose of apomorphine or in the somatorelin-induced GH release. CONCLUSIONS: The GH response to a subthreshold dose of apomorphine appears to be a useful tool to identify patients with PD vs multiple system atrophy. The enhanced GH response to a subthreshold dopaminergic stimulus may reflect a hypersensitivity of the extrastriatal dopamine receptors in PD.

L5 ANSWER 32 OF 45 MEDLINE on STN DUPLICATE 16
ACCESSION NUMBER: 2001440640 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11487211
TITLE: Stimulation of growth hormone release in multiple system atrophy, Parkinson's disease and idiopathic cerebellar ataxia.
AUTHOR: Pellecchia M T; Salvatore E; Pivonello R; Faggiano A; Barone P; De Michele G; Colao A M; Filla A
CORPORATE SOURCE: Department of Neurological Sciences, University Federico II, Naples, Italy.
SOURCE: Neurological sciences : official journal of the Italian Neurological Society and of the Italian Society of Clinical Neurophysiology, (2001 Feb) Vol. 22, No. 1, pp. 79-80. Journal code: 100959175. ISSN: 1590-1874.
PUB. COUNTRY: Italy
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200112
ENTRY DATE: Entered STN: 13 Aug 2001
Last Updated on STN: 21 Jan 2002
Entered Medline: 13 Dec 2001
AB Clonidine has been proposed to differentiate multiple system atrophy (MSA) from idiopathic Parkinson's disease (IPD), as it does not increase growth hormone (GH) release in MSA. We studied GH release in response to clonidine in 7 IPD patients, 6 MSA patients, 4 patients affected by idiopathic late-onset cerebellar ataxia (ILOCA) and 8 healthy controls. In addition, we investigated the effects of GH releasing hormone plus arginine (GHRH-Arg) on GH release in the same patients. Both clonidine and GHRH-Arg raised serum GH levels in all groups examined. Clonidine failed to differentiate MSA from IPD and ILOCA. GHRH-Arg showed a lower increase of serum GH in MSA patients than in other groups, even if such difference was not statistically significant. We suggest that stimulation of GH release with GHRH-Arg rather than clonidine could differentiate MSA from IPD and ILOCA, but this hypothesis would need to be confirmed by further investigations.

L5 ANSWER 33 OF 45 MEDLINE on STN DUPLICATE 17
ACCESSION NUMBER: 2000384832 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10869054
TITLE: Physiological, pharmacological and neurohormonal assessment of autonomic function in progressive supranuclear palsy.

AUTHOR: Kimber J; Mathias C J; Lees A J; Bleasdale-Barr K; Chang H S; Churchyard A; Watson L
CORPORATE SOURCE: Autonomic Unit, University Department of Clinical Neurology, Institute of Neurology, University College London, National Hospital for Neurology and Neurosurgery and Neurovascular Medicine Unit, London, UK.
SOURCE: Brain : a journal of neurology, (2000 Jul) Vol. 123 (Pt 7), pp. 1422-30.
Journal code: 0372537. ISSN: 0006-8950.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200008
ENTRY DATE: Entered STN: 18 Aug 2000
Last Updated on STN: 18 Aug 2000
Entered Medline: 7 Aug 2000

AB The clinical features of progressive supranuclear palsy (PSP) overlap with other parkinsonian syndromes, including multiple system atrophy (MSA). Autonomic dysfunction is a characteristic of MSA, but has also been described in PSP. We therefore report results from a series of physiological studies of cardiovascular autonomic function in 35 PSP and 20 MSA subjects, and 26 age-matched healthy control subjects. The response to growth hormone-clonidine testing, a neuropharmacological assessment of central adrenoceptor function, was also assessed in 14 PSP and 10 MSA subjects, and compared with 10 controls. None was on medication which may have affected the results. Orthostatic hypotension did not occur in PSP subjects or controls, unlike MSA subjects. Overall there was no evidence of sympathetic vasoconstrictor failure in PSP subjects, unlike MSA subjects, although the pressor response to mental arithmetic was reduced. Cardiac parasympathetic function was affected in only a minority (three of 35) of PSP subjects and was abnormal in MSA subjects. After clonidine administration, growth hormone rose in PSP subjects (median increase 4.3; interquartile range 1.8-7.8 mU/l) and controls, unlike MSA subjects (0.9; 0.3-2.4 mU/l; P < 0.005, Mann-Whitney U-test). In conclusion, in PSP subjects, responses to both physiological and pharmacological tests provided evidence against widespread autonomic dysfunction; this differed markedly from MSA subjects. Thus, cardiovascular autonomic dysfunction should be an exclusionary feature in the diagnosis of PSP.

L5 ANSWER 34 OF 45 MEDLINE on STN DUPLICATE 18
ACCESSION NUMBER: 2001190915 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11151417
TITLE: Is clonidine growth hormone stimulation a good test to differentiate multiple system atrophy from idiopathic Parkinson's disease?.
AUTHOR: Tranchant C; Guiraud-Chaumeil C; Echaniz-Laguna A; Warter J M
CORPORATE SOURCE: Service des Maladies du Systeme Nerveux et du Muscle, Hopitaux Universitaires, 1 Place de l'Hopital, 67091 Strasbourg, France. christine. tranchant@chru-strasbourg.fr
SOURCE: Journal of neurology, (2000 Nov) Vol. 247, No. 11, pp. 853-6.
Journal code: 0423161. ISSN: 0340-5354.
PUB. COUNTRY: Germany: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals

ENTRY MONTH: 200104
ENTRY DATE: Entered STN: 10 Apr 2001
Last Updated on STN: 10 Apr 2001
Entered Medline: 5 Apr 2001

AB Clonidine, a centrally active alpha 2-adrenoreceptor agonist used to lower blood pressure, has been proposed to differentiate central from peripheral autonomic deficits and multiple system atrophy (MSA) from untreated idiopathic Parkinson's disease (IPD). A lack of growth hormone (GH) increase after clonidine infusion is found in patients with MSA, but not in those with IPD or with pure autonomic failure. We studied 19 IPD and 7 MSA patients to assess whether this test could be used in clinical practice to distinguish MSA from IPD, whatever the stage of the disease. Serum GH levels were measured 15, 30, 45 and 60 min after a 10-min infusion of 2 micrograms/kg clonidine. GH levels remained stable after clonidine infusion in all 7 MSA patients but increased in only 12 of the 19 IPD patients, while remaining stable in the other 7. No correlation was found with the presence of orthostatic hypotension. We conclude that the GH response to clonidine infusion has a very high sensitivity (100% in our series and in previous studies) for the diagnosis of MSA. However, this response cannot be used as a diagnostic test because of its poor specificity.

L5 ANSWER 35 OF 45 MEDLINE on STN
ACCESSION NUMBER: 1999232905 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10218537
TITLE: Failure of the clonidine growth hormone stimulation test to differentiate multiple system atrophy from early or advanced idiopathic Parkinson's disease.
AUTHOR: Clarke C E; Ray P S; Speller J M
SOURCE: Lancet, (1999 Apr 17) Vol. 353, No. 9161, pp. 1329-30. Journal code: 2985213R. ISSN: 0140-6736.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Letter
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199905
ENTRY DATE: Entered STN: 1 Jun 1999
Last Updated on STN: 3 Mar 2000
Entered Medline: 20 May 1999

L5 ANSWER 36 OF 45 EMBASE DUPLICATE 19
ACCESSION NUMBER: 1999135388 EMBASE
TITLE: Failure of the clonidine growth hormone stimulation test to differentiate multiple system atrophy from early or advanced idiopathic Parkinson's disease.
AUTHOR: Clarke, C.E. (correspondence); Ray, P.S.; Speller, J.M.
CORPORATE SOURCE: Department of Neurology, City Hospital MHS Trust, Birmingham B1S 7QH, United Kingdom. c.e.clarke@bham.ac.uk
AUTHOR: Clarke, C.E. (correspondence); Ray, P.S.; Speller, J.M.
CORPORATE SOURCE: University of Birmingham, Edgbaston, Birmingham. c.e.clarke @bham.ac.uk
AUTHOR: Clarke, C.E. (correspondence)
CORPORATE SOURCE: Department of Neurology, City Hospital NHS Trust, Birmingham B18 7QH, United Kingdom. c.e.clarke@bham.ac.uk
SOURCE: Lancet, (17 Apr 1999) Vol. 353, No. 9161, pp. 1329-1330. Refs: 3
ISSN: 0140-6736 CODEN: LANCAO
COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 003 Endocrinology
037 Drug Literature Index
008 Neurology and Neurosurgery
LANGUAGE: English
ENTRY DATE: Entered STN: 29 Apr 1999
Last Updated on STN: 29 Apr 1999

L5 ANSWER 37 OF 45 MEDLINE on STN DUPLICATE 20
ACCESSION NUMBER: 2000049368 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10584673
TITLE: Neuroendocrine responses to levodopa in multiple system atrophy (MSA).
AUTHOR: Kimber J; Watson L; Mathias C J
CORPORATE SOURCE: Division of Neuroscience and Psychological Medicine, Imperial College School of Medicine at St. Mary's Hospital, London, UK.
SOURCE: Movement disorders : official journal of the Movement Disorder Society, (1999 Nov) Vol. 14, No. 6, pp. 981-7. Journal code: 8610688. ISSN: 0885-3185.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200001
ENTRY DATE: Entered STN: 31 Jan 2000
Last Updated on STN: 31 Jan 2000
Entered Medline: 20 Jan 2000

AB Hypothalamic dopaminergic pathways are involved in the regulation of growth hormone and prolactin release from the anterior pituitary. Neuroendocrine studies in patients with multiple system atrophy (MSA), in whom there is a reported loss of hypothalamic dopamine, are few and contradictory. We therefore studied the neuroendocrine responses to 250 mg levodopa (plus 25 mg carbidopa) in subjects with MSA (n = 15), and compared them with age- and sex-matched healthy control subjects (n = 8). There were no significant differences in basal or post-levodopa levels of growth hormone (GH), growth hormone-releasing hormone (GHRH), glucose, insulin-like growth factor (IGF-1), or thyroid-stimulating hormone (TSH) between the groups. In patients with MSA, basal levels of prolactin were elevated (21.1 +/- 5.2 ng/mL [mean +/-standard error]) compared with control subjects (12.1 +/- 1.7, p <0.05), and after L-dopa there was increased variability in prolactin response with less suppression compared with control subjects. In conclusion, in patients with MSA, the GHRH and GH responses to L-dopa were preserved and were similar to responses in age-matched control subjects. In contrast, there was impaired dopaminergic suppression of prolactin secretion. In patients with MSA this may represent a selective dysfunction, rather than generalized loss, of tubero-infundibular dopaminergic neurones.

L5 ANSWER 38 OF 45 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
ACCESSION NUMBER: 1998:290561 BIOSIS
DOCUMENT NUMBER: PREV199800290561
TITLE: Growth hormone (GH) secretion during sleep is similar in multiple system atrophy (MSA) and Parkinson's disease (PD).
AUTHOR(S): Pierangeli, Giulia; Barletta, Giorgio; Provini, Federica; Plazzi, Giuseppe; Maltoni, Paolo; Pavani, Anna; Bozza, Daniela; Lugaresi, Elio; Cortelli, Pietro
CORPORATE SOURCE: Bologna, Italy

SOURCE: Neurology, (April, 1998) Vol. 50, No. 4 SUPPL. 4, pp. A240-A241. print.
Meeting Info.: 50th Annual Meeting of the American Academy of Neurology. Minneapolis, Minnesota, USA. April 25-May 2, 1998. American Academy of Neurology.
CODEN: NEURAI. ISSN: 0028-3878.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LANGUAGE: English
ENTRY DATE: Entered STN: 8 Jul 1998
Last Updated on STN: 8 Jul 1998

L5 ANSWER 39 OF 45 MEDLINE on STN DUPLICATE 21
ACCESSION NUMBER: 1998446275 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9773098
TITLE: [Pharmacologic approach to autonomic failure]. Approche pharmacologique des dysautonomies.
AUTHOR: Senard J M; Montastruc J L
CORPORATE SOURCE: Laboratoire de Pharmacologie Medicale et Clinique, INSERM U 317, Faculte de Medecine, Toulouse, France.
SOURCE: Therapie, (1998 Jan-Feb) Vol. 53, No. 1, pp. 35-41. Ref: 80
Journal code: 0420544. ISSN: 0040-5957.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: (ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: French
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199811
ENTRY DATE: Entered STN: 6 Jan 1999
Last Updated on STN: 6 Jan 1999
Entered Medline: 3 Nov 1998
AB Four different forms of primary autonomic failure (multiple system atrophy, pure autonomic failure, Parkinson's disease and dopamine beta-hydroxylase deficiency) have been described. The first part of the article will focus on the interest to pharmacology of elucidating pathophysiological mechanisms underlying autonomic involvement at the central level (growth hormone response to clonidine acute challenge), presynaptic level (plasma catecholamine levels after yohimbine administration) and on post-synaptic receptors (binding studies, pressor responses to noradrenaline). The second part will discuss efficacy and side-effects of some of the many drugs which are currently proposed for the treatment of one of the most disabling symptoms related to autonomic failure, orthostatic hypotension. Special attention will be paid to drugs acting on blood composition (fludrocortisone, erythropoietin), on post-synaptic alpha-adrenoceptors (midodrine and clonidine) and on noradrenaline spill-over (yohimbine and L-Threo-DOPS).

L5 ANSWER 40 OF 45 MEDLINE on STN DUPLICATE 22
ACCESSION NUMBER: 1997360797 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9217760
TITLE: Distinction of idiopathic Parkinson's disease from multiple-system atrophy by stimulation of growth-hormone release with clonidine.
AUTHOR: Kimber J R; Watson L; Mathias C J
CORPORATE SOURCE: University Department of Clinical Neurology, National Hospital for Neurology and Neurosurgery/Institute of Neurology, London, UK.

SOURCE: Lancet, (1997 Jun 28) Vol. 349, No. 9069, pp. 1877-81.
Journal code: 2985213R. ISSN: 0140-6736.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199707
ENTRY DATE: Entered STN: 12 Aug 1997
Last Updated on STN: 12 Aug 1997
Entered Medline: 28 Jul 1997

AB BACKGROUND: Idiopathic Parkinson's disease is a common neurodegenerative disease that is difficult to distinguish from other parkinsonian syndromes such as multiple-system atrophy (MSA). In MSA, autonomic dysfunction is common and is associated with either parkinsonian or cerebellar features, or both. Differentiation of idiopathic Parkinson's disease from MSA is important because prognosis, complications, and response to therapy vary according to disorder. Our aim was to find out whether clonidine/growth hormone (GH) testing distinguishes idiopathic Parkinson's disease from MSA. METHODS: Clonidine is a centrally active alpha 2-adrenoceptor agonist that raises concentrations of GH in serum in healthy people and those with pure autonomic failure (with peripheral lesions), but not in those with MSA (with a central autonomic deficit). We investigated the effects of clonidine on 14 people with idiopathic Parkinson's disease (without autonomic deficits). 31 people with MSA of the three different clinical forms (parkinsonian, cerebellar, and mixed), 19 people with pure autonomic failure, and 27 healthy participants. In nine people with parkinsonian MSA (MSA-P), the GH response to levodopa was also assessed. FINDINGS: Clonidine raised serum GH concentrations in patients with idiopathic Parkinson's disease (median increase 8.98 [IQR 6.6-16.6] mU/L), normal participants (13.2 [7.0-18.6] mU/L), and patients with pure autonomic failure (12.5 [5.6-18.2] mU/L). In those with MSA who had central autonomic failure, GH concentrations were unchanged (MSA-P; 0.41 [-0.30 to 2.09] mU/L and cerebellar MSA [MSA-C] 1.67 [0-4.49] mU/L). The GH response to clonidine in idiopathic Parkinson's disease was significantly different from that in MSA-P ($p < 0.0002$). In MSA-P, the dopamine precursor levodopa raised GH concentrations (from mean 2.7 [SE 1.0] mU/L to mean 18.2 [6.0] mU/L, $p < 0.05$) and GH-releasing hormone (GHRH) concentrations (from mean 20.6 [3.25] ng/L to mean 68.0 [10.6] ng/L, $p < 0.05$), excluding dysfunction of pituitary somatotrophs or GHRH neurons as a cause for the absent GH response to clonidine in MSA. INTERPRETATION: The GH responses to clonidine clearly differentiated idiopathic Parkinson's disease from MSA-C and MSA-P. Together with the levodopa studies they indicated a specific alpha 2-adrenoceptor-hypothalamic deficit in MSA. The clonidine-GH test may provide further insight into central neurotransmitter and alpha 2-adrenoceptor-hypothalamic abnormalities in MSA.

L5 ANSWER 41 OF 45 MEDLINE on STN DUPLICATE 23
ACCESSION NUMBER: 1997054962 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8899251
TITLE: Neurohumoral, peptidergic and biochemical responses to supine exercise in two groups with primary autonomic failure: Shy-Drager syndrome/multiple system atrophy and pure autonomic failure.
AUTHOR: Smith G D; Watson L P; Mathias C J
CORPORATE SOURCE: Department of Medicine, St Mary's Hospital medical School/Imperial College of Science, London, UK.

SOURCE: Clinical autonomic research : official journal of the Clinical Autonomic Research Society, (1996 Oct) Vol. 6, No. 5, pp. 255-62.
Journal code: 9106549. ISSN: 0959-9851.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Space Life Sciences
ENTRY MONTH: 199702
ENTRY DATE: Entered STN: 5 Mar 1997
Last Updated on STN: 5 Mar 1997
Entered Medline: 19 Feb 1997

AB The neurohumoral, peptidergic and biochemical responses to supine leg exercise were studied in two groups with primary autonomic failure: Shy-Drager syndrome (SDS, n = 15) and pure autonomic failure (PAF, n = 15), to determine if these accounted for exercise-induced hypotension and the greater blood pressure (BP) fall in PAF. Responses were compared to normal subjects (controls, n = 15), in whom BP rose with exercise. Resting plasma noradrenaline (NA) was higher in controls than SDS, and was lowest in PAF. With exercise, NA increased in controls, with a small rise in SDS, but no change in PAF. Resting plasma adrenaline (A) was higher in controls and SDS than PAF, with no change during exercise. Plasma dopamine was unrecordable at all stages in all groups. Resting plasma renin activity (PRA) was higher in controls than SDS and PAF, and was unchanged with exercise in all groups. Plasma insulin, C-peptide and serum growth hormone (GH) were similar at
rest and with exercise in the three groups. Plasma glucose was higher at rest in SDS and PAF, and increased with exercise in all three groups. In conclusion, neither exercise-induced hypotension, nor the differences between SDS and PAF could be related to abnormalities in the release of A, PRA, insulin, glucose or GH. The abnormal NA response to exercise was consistent with the BP fall being due to inadequate compensatory sympathetic activity. In SDS, the small NA increase, in the presence of supersensitivity, may have reduced their BP fall as compared to PAF. These results suggest that impaired sympathetic neural activity is a key factor in exercise-induced hypotension.

L5 ANSWER 42 OF 45 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
ACCESSION NUMBER: 1996:446224 BIOSIS
DOCUMENT NUMBER: PREV199699168580
TITLE: Neuropharmacological evaluation of hypothalamic alpha-adrenoceptor deficit in human central sympathetic degeneration.
AUTHOR(S): Kimber, J. [Reprint author]; Watson, L.; Mathias, C. J.
CORPORATE SOURCE: Autonomic Unit, Univ. Dep. Clinical Neurol., Inst. Neurol., Queen Square, UK
SOURCE: Journal of Physiology (Cambridge), (1996) Vol. 494P, No. 0, pp. 138P-139P.
Meeting Info.: Scientific Meeting of the Physiological Society. London, England, UK. April 16-18, 1996.
CODEN: JPHYA7. ISSN: 0022-3751.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 7 Oct 1996
Last Updated on STN: 7 Oct 1996

L5 ANSWER 43 OF 45 MEDLINE on STN DUPLICATE 24
ACCESSION NUMBER: 1995199869 MEDLINE

DOCUMENT NUMBER: PubMed ID: 7892755
TITLE: High beta-adrenoceptor density on peripheral blood mononuclear cells in progressive multiple sclerosis: a manifestation of autonomic dysfunction?.
AUTHOR: Zoukos Y; Thomaides T; Mathias C J; Cuzner M L
CORPORATE SOURCE: Multiple Sclerosis Laboratory, National Hospital for Neurology and Neurosurgery, London, England.
SOURCE: Acta neurologica Scandinavica, (1994 Dec) Vol. 90, No. 6, pp. 382-7.
Journal code: 0370336. ISSN: 0001-6314.
PUB. COUNTRY: Denmark
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199504
ENTRY DATE: Entered STN: 27 Apr 1995
Last Updated on STN: 29 Jan 1999
Entered Medline: 20 Apr 1995

AB In multiple sclerosis (MS) up-regulation of beta-adrenoceptors on peripheral blood mononuclear cells (PBMCs) has been attributed to either autonomic dysfunction, inflammation or a combination of the two. We have compared secondary progressive MS patients with normal subjects (NS) and two models of autonomic dysfunction; pure autonomic failure (PAF) and multiple system atrophy (MSA, Shy-Drager syndrome). There was up-regulation of beta-adrenoceptors on PBMCs in MS and PAF patients but not in MSA patients. Only in PAF patients beta-adrenoceptor up-regulation was correlated with low plasma levels of noradrenaline (NA) and adrenaline (Ad). In addition to studies in the basal state, measurements also were made after the centrally acting sympatholytic agent clonidine. These were combined with haemodynamic and neurohormonal measurements. After clonidine, there was a fall in blood pressure in NS and MSA patients but not in MS and PAF patients; a rise in growth hormone (GH) in NS and PAF patients but not in MS and MSA patients; and an up-regulation in PBMCs beta-adrenoceptors in NS but not in MS, MSA and PAF patients. Up-regulation of beta-adrenoceptors on PBMCs in MS could be attributed to autonomic dysfunction but the disparity between MS and PAF patients when considering their plasma levels of NA and Ad argue against. Although the neurohormonal responses to clonidine and the physiological assessment of autonomic function in progressive MS patients, demonstrate central autonomic dysfunction resembling that of the MSA patients, the normal basal beta-adrenoceptor densities in the latter, suggests that the up-regulation of these receptors is independent of the central autonomic dysfunction in MS.

L5 ANSWER 44 OF 45 MEDLINE on STN DUPLICATE 25
ACCESSION NUMBER: 1994224346 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8170565
TITLE: Beta-adrenoceptor expression on circulating mononuclear cells of idiopathic Parkinson's disease and autonomic failure patients before and after reduction of central sympathetic outflow by clonidine.
AUTHOR: Zoukos Y; Thomaides T; Pavitt D V; Cuzner M L; Mathias C J
CORPORATE SOURCE: Department of Neurochemistry, National Hospital for Neurology and Neurosurgery, London, UK.
SOURCE: Neurology, (1993 Jun) Vol. 43, No. 6, pp. 1181-7.
Journal code: 0401060. ISSN: 0028-3878.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English

FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199406
ENTRY DATE: Entered STN: 13 Jun 1994
Last Updated on STN: 13 Jun 1994
Entered Medline: 2 Jun 1994

AB There is a short-term up-regulation of beta-adrenoceptors on peripheral blood mononuclear cells (PBMC) after reduction of central sympathetic outflow by clonidine in normal individuals. We have studied beta-adrenoceptor number and affinity on PBMC in idiopathic Parkinson's disease (PD), pure autonomic failure (PAF), and multiple system atrophy (MSA; Shy-Drager syndrome) patients and age- and sex-matched normal controls (NC) before and after intravenous administration of clonidine, an alpha 2-adrenoceptor agonist which lowers blood pressure predominantly by reducing CNS sympathetic outflow. Basal beta-adrenoceptor density was high in PAF but within the normal range in PD and MSA patients. After clonidine there was a decrease in plasma levels of noradrenaline (NA) and adrenaline (Ad) in PD, MSA, and NC, and an increase in growth hormone (GH) in PD, PAF, and NC. NC. In PAF, NA and Ad remained unchanged. In MSA, there was no increase in GH levels. There was an up-regulation of beta-adrenoceptors on PBMC at 30 and 60 minutes after clonidine administration, which returned to baseline values after 2 hours, and the affinity of the receptors was decreased in NC and PD patients. Intracellular production of cAMP after isoproterenol stimulation demonstrated that the up-regulation was not functional. Up-regulation after clonidine did not occur in PAF and MSA patients. The observed correlation of plasma NA and sympathetic defect with basal and clonidine-induced up-regulation of beta-adrenoceptors on PBMC may provide insight into beta-adrenoceptor changes in other tissues and also help in differentiating subgroups of autonomic failure patients.

L5 ANSWER 45 OF 45 MEDLINE on STN DUPLICATE 26
ACCESSION NUMBER: 1992341842 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1353191
TITLE: Growth hormone response to clonidine in central and peripheral primary autonomic failure.
AUTHOR: Thomaides T N; Chaudhuri K R; Maule S; Watson L; Marsden C D; Mathias C J
CORPORATE SOURCE: Department of Medicine, St Mary's Hospital Medical School, Imperial College of Science, Technology and Medicine, London, UK.
SOURCE: Lancet, (1992 Aug 1) Vol. 340, No. 8814, pp. 263-6.
Journal code: 2985213R. ISSN: 0140-6736.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199208
ENTRY DATE: Entered STN: 11 Sep 1992
Last Updated on STN: 6 Feb 1995
Entered Medline: 25 Aug 1992

AB Patients with primary autonomic failure may have either pure autonomic failure (PAF) or multiple system atrophy (MSA) in which there is additional neurological involvement. Distinction between PAF and MSA at an early stage is important because a wide range of complications is associated with MSA, which has a poor response to drug therapy and a less favourable prognosis. We have investigated the growth hormone (GH) releasing effects of clonidine in patients with PAF and MSA to see whether this hormonal response could serve as a neuroendocrine marker to distinguish between the groups. Age-matched normal subjects were studied as controls. Both

groups of patients had severe postural hypotension due to primary sympathetic failure of presumed central origin in MSA and peripheral origin in PAF. After clonidine, plasma GH concentrations increased in controls and PAF, with no change in MSA. Changes in plasma glucose and insulin concentrations were similar in all groups. Clonidine, therefore, stimulates growth hormone release in PAF but not MSA and may serve as a neuroendocrine marker in differentiating patients with MSA and a central autonomic defect from those with PAF with a peripheral defect.

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